NEW-YORK FARMER
AND
Horticultural Repository.

VOL. 2.] NEW-YORK, DECEMBER, 1829. [NO. 12.

ART. 171.—*Triannual Report of the State of Agriculture and Horticulture in the County of Albany, New-York. By* J. Buel, Esq.

[For the New-York Farmer.]

Mr. Editor,—In compliance with your request, I send you a brief agricultural and horticultural report for the past season. It is intended particularly for the county of Albany, though it is more or less applicable to the counties which border upon it. Should you be favored with like communications from other districts of the state, and deem it advisable to publish them in your Journal, I propose to continue these notices periodically, say in June, Sept. and Dec.

The severe cold which was the first earnest of winter in 1828, was destructive to a great many of our young orchard and fruit trees. It is believed the injury was caused by the sudden transition of the temperature, one day being so mild as to induce a free flow of sap, and the next so cold as to freeze, distend and burst the sap vessels. The bark became brown, and in the spring, separated from the wood; sometimes in patches, at other times the entire plant was destroyed. A remote cause might have been the peculiarity of the preceding summer, during which the growth of some species, particularly of the plum, was suspended after July, till late in autumn, and many trees were nearly defoliated. I saw plums and chesnuts in bloom in Sep. and Oct. The wood of the late growth was consequently immature, and very sensitive to the severe cold of Dec. The pear, plum and cherry suffered particularly. At the same time it is thought most of the blossom buds of the peach were destroyed.

The farm labors of the spring commenced under favorable auspices. The winter crops looked well, and generally they realized the anticipations of the farmer in their returns. Wheat was very good, the straw being free from rust and mildew, the berry plump, and the crop well secured. Rye, a fair medium crop. Those who were guided by the adage, to "make hay while the sun shines," availed themselves of the fine weather in the last of April and first of May, to put in their spring crops; and where the grounds were dry and prepared, the crops were good. Wet grounds suffered much, and late sowing and planting were ill timed for the dry and comparatively cool weather of June and July.

Our farmers are wretchedly deficient in their system of draining and ridging,—or rather, they pay little attention to either. As things now are, much of our tillage lands can only be advantageously worked when dry; and if the season becomes wet after the seed is in the ground, the crops suffer seriously. A soil filled with water is cold,—the vegetable food deposited in it remains inert and good for nothing, either from the want of heat and air, which the water excludes, to decompose and render it soluble, or from its being too copiously diluted—it is too adhesive to permit the roots to penetrate in search of food,—and if drought ensues, the surface becomes crusted and hard. All these evils might be prevented by leading off running water in drains, and by ridging retentive soils more or less broad according to the slope of the field and the nature of the subsoil, to pass off the excess which falls upon the surface. From want of attention to these primary labors, much corn, potatoes, barley, oats, and peas were put into the ground late, and but illy requited the labor bestowed upon their culture. Hay was diminutive in quantity, but of fine quality; and generally well got in by the watchful farmer. This calls to mind another prominent error in our practice: that of perpetuating our meadow grounds—of mowing the same fields for years after the fine grasses have run out, and they cease to be profitable. Some farmers, who occasionally alternate grain and roots upon their grass grounds, get double and treble the hay, I am persuaded, from the same area of surface, and quality of soil, that others obtain under the old slothful practice. I give the names of Earl Stimson, of Galway, and Henry W. Delavan, of Ballston, as examples of *good* farming in this particular. "*Change*" is stamped upon every object in creation, inanimate as well as animate. The timber of the forest alternates spontaneously; so does the grass of the meadow. We might as well expect 20 or 30 successive good crops of wheat from a field, as so many successive good crops of grass from a meadow; yet no one dreams of the former.

Turnips, buckwheat, and cabbages, suffered much by the dry weather in Sep. and turned out light crops. I cannot refrain, by the way, of here recommending to the owners of light soils, the culture of the turnip as a second crop, for cattle feed to be fed out in au-

tumn and spring, and even in winter, if barn cellars are prepared for preserving their roots. I give the result of my experience for several yeras, when I say, that it is a profitable and sure crop. I have raised the Swedish turnip at an expense of two and a half cents per bushel, including manure, and other kinds at an equally low rate. The tops properly husbanded, afford fine food during all November, after which the roots may be fed out as long as the weather will permit, and finished in the spring. My cows, thus fed, have given as much milk and butter in Nov. as in any month of summer. I am now, Dec. 14, feeding this root to my stock, at the rate of a bushel to each animal per day.

In Horticulture the season has been unfavorable in regard to most fruits, and generally favorable for roots. Although our apple orchards have yielded abundantly, yet, our plums were destroyed by insects, and the blossoms of the peach, cherry, and pear, by frosts of winter and spring. Grapes yielded an uncommon product, and were very free from mildew, but ripened nearly two weeks later than usual. It is very desirable that a preventive should be discovered against the depredations of those insect enemies upon our garden fruits; and if horticultural *gentlemen* would emulate the example of a distinguished and highly gifted horticultural *Lady* of New Jersey, I should hope soon to profit by the discovery.

It is due to our county to say, that notwithstanding the errors in practice which I have noted, and others that I may hereafter have occasion to mention, our progress in agricultural and horticultural improvement is steady and flattering. The benefits of our late agricultural associations are daily becoming more apparent. Our farmers are acquiring the first requisites for improvement; a consciousness that their practice *is not* the best, and that they really *want* information. Our breeds of live stock have manifestly been much improved. Our implements have been multiplied; and they are better made, and better used than formerly. The alternation of crops prevails more than heretofore; and some have ventured to innovate so far as to substitute fallow crops for the old system of naked fallows. And finally, a reasonable expectation is indulged by the most sanguine, that the manure of our city, which was wont to float down the Hudson on the ice in the spring, and obstruct navigation at the *over-slaugh*, will soon have another direction, and contribute to enrich the soil whence it originally came.

Albany, 14*th. Dec.* 1829.

Ireland exports 1,200,000 quarters of grain, and 300,000 cwt. of flour.

ART. 172.—*The Horse avoids shaded pasturage of every kind.* By AMOS EATON. [For the New Farmer.]

In my manuscript Journal of June 7*th*, 1827, I find this article.

Memorandum.—We put our horse into the Rensselaer school yards, of which there are five in number, after he had been kept on dry hay more than a year, and observed his order of selections for ten days.

1*st.* He selected the *Agrostis vulgaris*, which grew in places exposed to the sun—avoiding all shaded vegetables, at the back of buildings, under trees, &c.

2*nd.* Next to the Agrostis vulgaris, he selected the *Phleum pratense* in sunny places—avoiding shades as before.

3*rd.* The third selection among the vegetables of the yards was the *Agropyron repens*, in sunny places.

4*th.* *Thlaspi bursa pastoris* was selected next, in preference to two species of trifolium and one of millilatus, all growing in the sun.

5*th.* *Trifolium repens* in sunny places was selected next.

6*th.* *Trifolium pratense* was taken next in order in sunny places.

7*th.* He avoided the *Millilotus alba* in all places, and seemed to prefer starving to eating it, whether in sun or shade.

8*th.* After gnawing all the plants before mentioned into the very earth, excepting the millilotus, he commenced with the same in the shade and proceeded in the same order of selection, until he had eat on all the Agrostis, Phleum and Thlaspi.

We continued the experiment, intending to starve him until he would make further selections. The millilotus was still abundant in sun and shade; also, the *Sinapis nigra!* and both species of Trifolium, and the Agropyron were in a fine state of tender growth in the shade. But he still continued to gnaw into the very earth in the sunny ground, until we became satisfied that he would starve himself to a skeleton.

I send you the above scrap because the science of agriculture must be built up with materials drawn from insulated facts.

Troy, 30*th. Nov.* 1829. AMOS EATON.

N. B. 1. Was the experiment of making pasturage for horses by sowing a field with the *Thlaspi bursa pastoris*, ever tried?

2. Was the subject of dry and green vegetables of the same kind, and for the same animal, ever duly

considered? It is well known that the horse prefers cured clover hay to cured timothy hay, though his choice is the reverse when both are in the growing state.

ART. 173. *Education of a Young Farmer—Letters from the Editor of the New-York Farmer, to a Lady of New-Jersey.* [Continued from page 270.]

MADAM,—Chemistry has now become so generally studied by youth of both sexes, who receive an education in any degree above the common, that no young farmer can lay just claim to even mediocrity of intelligence, without some knowledge of it; while no study is more in harmony with his pursuits, opens a wider field for thought, or fills the mind with more pleasing and adorable views of the wisdom of Him, who contrived and executed an order of things, multiform in their operations, yet most beautiful and harmonious in their adaptation of agency and parts. Chemistry both enlightens the mind and gives it a useful turn. Indeed it may be truly said to open a new world to the youthful vision: every object is put in a different light, and receives additional importance in the grand scale of existencies. Regularity and the operation of active and powerful agents, take the place of confusion and inertness. The air, which before was, he knew not nor cared what, is now found to be a compound fluid, whose ingredients are constantly combining with, and escaping from, every animal and vegetable substance on the face of the earth. The changes in plants from the germination of the seed to the production of fruit seldom led to investigation, and afforded but little pleasure to the mind; but now the number of agents and the various circumstances under which they act, deeply interest the young beholder in every stage of operation. Information derived from chemistry enters into every branch of the farmer's pursuits. It leads him to close observation, to trace effects back to their causes, and to devise means to render every thing most effective; judicious management and economy, are direct consequences of chemical knowledge. Fully convinced that almost every substance is constantly undergoing changes, and rapidly hastening to some crisis, he sees most clearly, the importance of having every thing done at the proper time. He knows how his manure, for instance is, while in a state of fermentation, materially changing in quality and diminish in quantity; and hence he is enabled to be more judicious in its application to the soil. Acquiring a habit of observation, he is more likely to discover the causes of failure in his crops, to derive wisdom from his former errors and experience, and to render the circumstances in which he is placed of the greatest avail. In fine, chemistry makes the young farmer more active, more enterprising, more anxious for, and more capable of being benefitted by further information.

In connection with chemistry a knowledge of geology, than which no other branch of study has been more enthusiastically cultivated for the thirty years past, is of utility. This is the science of the strata or layers of rocks and earth, which compose the globe. These layers are known to a very great depth; and the known existence of one leads to a high degree of certainty what are those lying immediately above or below it. If it is important to the agriculturist to be acquainted with the properties of the soil into which he places his seeds, so it is often equally important to know those of the sub-strata on which it lies. It is to this science that we are much indebted for the progress made in the discovery of the useful metals, and of coal for fuel. Next to astronomy, geology is best calculated, of all studies, to exhibit to the mind a demonstration of the unlimited power of the Creator. To trace his steps, when he drove before him the elements, that tore up the foundations of the earth, as exhibited in the present state and position of the strata, produces some of the most sublime emotions of which the human mind is susceptible.

Mineralogy, too, is of importance to the farmer, and is closely connected with chemistry. By the help of the latter science, it makes us acquainted with the properties of the substances composing the strata of our globe. If most of the earths and rocks, composing all soils, are metals combined with one of the constituents of the air, and many of our medicines and most of the substances used in the various arts of life, are derived from metals, mineralogy is unquestionably a useful study to the farmer. Like all other branches of human investigation, there is much to please; it spreads before the eye all that is beautiful and brilliant in colors, and points out one of the most admirable and wonderful laws controlling inanimate matter—that of crystallization.

In my next I will give you some remarks (crude and hasty as usual) on Botany and Natural History.

Yours, most respectfully.

New-York, December, 1829.

ART. 174.—*Potatoes—different opinions on the choice of seed, and soils best adapted to their cultivation.* [From the New-England Farmer.]

MR. FESSENDEN,—Puzzled by conflicting opinions

in relation to the cultivation of this vegetable, I procured, some years ago, a 4to volume, published by the British board of agriculture, exclusively devoted to this subject, in the confident expectation of having all my doubts solved by its perusal. It contained proper queries, propounded by the board to men of practical and scientific knowledge, and the answers of the latter. I commenced the examination of this ponderous work, and, as I thought, invaluable treasure, with great ardor; but my ardor abated as I progressed, until it terminated in indifference and disappointment. I found the opinions and results so contradictory and various, in relation to seed, soil, manure, cultivation, and product, that I felt myself more at a loss in regard to the subject than when I commenced reading. The committee of the board, whose province it was, from these materials, to have collected the best system of management, frankly acknowledged their inability to perform this duty. I, however, learned one important fact by my labor; viz. that the intrinsic value of a variety is not to be estimated by the size of its tubers; but that, under like circumstances, the nutriment is often in an inverse ratio to the volume of the vegetable; or, to state the result of chemical analysis, that while the *large* ox-noble yielded only *fourteen* per cent. of nutritious matter, the *small* kidney variety gave about double, or nearly *twenty-eight* per cent. I consider this result worth remembering, even by the farmer who cultivates this crop for his swine and bullocks. And it is in consonance with what I have remarked of the apple. The juices are more concentrated in the small than in the large fruit; and, as far as my memory serves me, all the finer cider fruits are under medium size. This is particularly the case with the Styre, Golden and Downton pippins, Foxley, Siberian, Harvey, and the cider crabs.

To return to the potato. Considerable practice, and careful observation, have suggested to me certain rules for the cultivation of this crop, which I submit to your disposal, with my reasons for adopting them. These rules direct,

1. That small potatoes should be rejected as seed.

2. That large ones should be cut into from two to five parts or sets.

3. That moist, (not wet,) and light, (but rich,) soils are best for the growth of this plant.

4. That unfermented dung, spread and turned under with the plough, is the best manure.

5. That grass leys are to be preferred, when convenient; and,

6. That the crop should be hilled or earthed, only at the first dressing.

1. I reject small potatoes as seed, because experience has taught me that such send up only feeble stocks, which can mature but a feeble progeny. It seems to be a law in the vegetable, as well as the animal kingdom, that a feeble parent can produce only a feeble offspring. Hence gardeners select the largest and most perfect seeds, and farmers the most perfect animals, to breed from.

2. But, it may be asked, if the small potato gives a feeble progeny, how can you expect a larger produce from a small set or cutting? The strength and vigor of the shoot which is to bear the new crop does not depend upon the potato, but upon the *eye* or *bud*, already formed, and which is, in fact, the embryo plant. In the large tuber the embryo is large and healthy; in the small one, feeble and immature. And I think the plant does not receive nourishment from the parent, after it has protruded its roots into the soil, and developed its radical leaves. Upon no other supposition can we account for the fact, that the eye and sprout, when separated from the tuber, will grow and produce a crop, as stated by Col. Pickering and Mr. Derby. The potato scoop is used in Europe to take out the eyes for seed, that the potato may be reserved for human food. We often find the seed solid and sound in autumn, without any apparent diminution of product.

3. That moist ground is best for this vegetable, in regard both to product and quality, I infer from analogy, and know from experience. Ireland, Nova-Scotia, and the west of England, produce the best flavored and most abundant crops of this vegetable. The climates of these countries are cool and humid and very similar; and what might there be considered a dry, warm soil, would here be denominated a cool and moist one. I have cultivated the same variety, in a season, upon a dry warm sand, and upon a well drained reclaimed bog. The advantage, both as to quality and quantity, was decidedly in favor of the bog. And I believe it is a conceded fact, that the potato deteriorates as we go south from lat. 42 on our continent, owing probably to the increase of temperature.

4. The gasses given off moderately by the fermentation of manure in the soil, seem peculiarly adapted to the wants of the potato plant. Besides, the fermenting process is highly beneficial to the soil, by rendering it open and porous, by which the roots penetrate more freely, and have a greater range for food; the tubers are less restrained, and the agency of the atmosphere is rendered more active. There is seldom a lack of moisture in putrescent vegetable matter when excluded from the drying influence of winds.

5. The same reasons that govern in the preceeding rule apply to this, with this additional one, that

the sward, according to the testimony of a valuable correspondent in a late N. E. Farmer, adds more than 12 tons to the fertilizing properties of every acre of soil. A knowledge and practical use of this single fact, is worth more than ten years subscription to every farmer who has not before appreciated it. The substitution of fallow crops, on the first furrow, for naked fallows, is one of the greatest improvements in modern husbandry. The excellent suggestions of Lorrain, to plough superficially for the second crop, after a fallow, so as to leave the vegetable matter below the wasting influence of the sun and winds, and where the roots of the new crop will seek it, are also worthy our highest consideration.

6. The potatoe is furnished with what may be termed two sets of roots, viz. the proper roots, or radicals, which shoot down into the earth, and supply the plant with food; and the umbellical roots, or stolens, which strike horizontally, and produce the fruit. These last must be near the surface; and if the plant is earthed after these have formed, and the tubers set, the stolen ceases to elongate, or produce new tubers; but a new set of stolens start out nearer the surface, which have seldom time to bring their progeny to maturity. Thus repeated earthings may increase the number, while they diminish the size of the product. J. B.

Albany, 1st. Dec. 1829.

ART. 175.—*Mixing and Sowing Grass Seeds.*

I am often inquired of, not only in the township and county I live in, but in other parts of the State, by strangers, respecting the different kinds of grasses; that is, which is best; whether mixed or not; if best, what proportion; and which kinds to mix.

1st. *Clover.*—The best on some accounts, but not on others; it starts early, grows all the season; shades the ground quickly: attracts more nitre from the air than any other grass; of course the best for land; but the sod when ploughed in the spring is of but little account in comparison of other grases; and moreover, it by some means, causes to come forth an abunbance of insects that make it slobber; and the grasshopper, which breeds from it, these together, have with *me* destroyed its value, and these two evils increase the longer it is kept on the farm.

2d. *Herdgrass*—Having many advantages attending it, is in reality the best grass we have; it makes a clean hearty hay, and will wait eight or ten days after it is fit to cut for a lazy farmer, and will drive a sluggard out of the cornfield, but if not in the way of the industrious farmer, who will first plough deep; then harrow, then plant, then farm shallow, and keep the sod down, neither does it bind a horse, but keeps him rather loose.

3rd. *Orchardgrass*—Is the next; it starts as soon in the spring as there is any growth in the ground, and grows as long as any continues: when cut for hay at any time, it will begin to grow the same hour; and if not very dry will grow one inch in 24 hours. I have had it to grow fourteen inches in nine days from the sythe; of course it will not give the ground to any grass, as its early and late growth forbids and smothers down every thing that opposes it, and to my knowledge it will hold the ground for 20 years.

If sowed in moist strong ground it will cut two good crops in a season and produce a considerable portion of pasture afterwards; but it ought not to be sowed by itself, if it is, it should be this, say one and a half peck per acre, and that in moist ground it grows somewhat in bunches and should have something to fill up the vacancies; when ploughed up it is done; it will not grow again if turned under.

4th. *Timothy*—Why should this grass be extolled? It comes the last, and many may smile at my mistaking question, why is it extolled? Answer, for the want of better knowledge!

There are a number of disadvantages attending it, and but one advantage. 1st. If not cut at the time it stops growth (when every grass ought to be cut) its leaves spot, die and become mere straw. 2nd. When cut, if not a wet season, it is done. 3d. It is very binding to a horse. 4th Like clover as to grasshoppers; it will grow in high, dry ground, better than some other grasses, and this is its only advantage; it does better for cattle than horses!

5th. Clover should not be sowed without orchardgrass; when mixed they cannot fall down so as to be bad mowing; this helps clover in making and in the mow; both fit to be cut at once, and quickly grow again; one peck of orchard and three quarts of clover are enough per acre.

6th. Herd and Timothy mixed about equally make very good hay and pasture; the timothy is rather earlier, but the herd keeps it back, and its leaves green, until it is fit to cut.

Two quarts seed each to the acre is sufficient, but in the way that herd is sold, just threshed and riddled, it ought to be half a peck.

I have, for a number of years, mixed Timothy, Herd and Orchard, so as to make the grass about equal on the ground.

7th. All kinds of grass seeds should be sown, if on winter grain, the fore part of January; then it has all the winter to settle into the ground, and is not so liable to be killed with frost, as that which is sown in spring.—*Western Star.*

ART. 176.—Natural History—*Class* III.—*Reptiles.* By the Editor. [Cont. from p. 257.]

This class embraces the cold blooded animals, serpents, lizards, frogs, and tortoises—having the circulation and respiration less complete than those of the warm blooded, and producing their young by means of eggs, for hatching which they have not sufficient warmth of body. Most of the animals of this class have two auricles to the heart, and one ventricle; the left auricle receives the red blood from the lungs, and the right the black blood from the body. At the ventricle the two kinds of blood are mixed and transfused into different parts of the body and lungs. Their instinct and faculties are inferior to quadrupeds and birds. Their lungs being smaller, and as animal heat is in proportion to the quantity of air respired, hence the blood is cold and its circulation slow. It is from the smallness of their lungs that they consume so little air, and are enabled to live so long without it. This provision admirably adapts them for their habits of living. This class of animals is divided into four orders.

I. *Chelonia*, the Tortoise, having their ribs, sternum, and vertebræ, so constructed as to form an upper and under shell, making a great part of their skeleton answer for a covering to the body. They have no teeth, but tough and horny jaws. The various species of turtle and tortoise belong to this order.

II. *Sauria*, or Lizards, include the crocodile, the alligator, the cameleon, the true lizards, the dragons, &c. Most of them have four feet; they are supplied with nails and teeth, and their skin is covered with scales.

The crocodile is often thirty feet in length including the tail. Their eggs, resembling those of the domestic goose, are deposited in the sand, where they are often destroyed by birds, and by an animal called the ichneumon. When first hatched, young crocodiles are very docile, but soon acquire the savage nature of the larger ones.

The cameleon, with its extraordinary large lungs, is able to distend itself, by the inhalation of air, to such a degree as to give it a semi-transparent appearance. In this state the wants and passions of the animal producing a change in the circulation, give to the skin, the varied hues for which the animal is so remarkable.

III. *Ophidia*, or Serpents, have long slender bodies without limbs. Their jaws and throat are capable of very great distention, enabling them to swallow animals much greater than themselves. The teeth are sharp and bent backwards.

There are two divisions, the venomous and those that are not. The former is less numerous, and smaller than the latter. The largest, such as the Boa constrictor, the Aboma and the Anaconda, inhabit tropical climates.

The boa constrictor, lately exhibited at the Masonic Hall in this city, is about five years old, and measures in length eighteen feet. He devours, at one meal, a large sized rabbit. In their native state, and of full size, which, it is said, they attain in about half a century, the largest sized animals are swallowed.

4. *Batrachia*, including the toad, frog, salamander, &c. have only one auricle to the heart, into which enter the veins from the lungs and from the body. When first hatched from the egg, the young are wholly aquatic, breathing and living in the water. They, in this state, have gills like fish, but are destitute of limbs except a tail. They soon, however, undergo a transformation—feet and legs shoot forth—their tail, their gills, and the covering to the head fall off, and they become new creatures, respiring through lungs, and breathe only in the air.

The last three orders are either of little use or hostile to man; consequently, as mankind increase and become civilized, they will decrease, particularly the Sauria and the Ophidia. Those animals that are useless to him, man destroys as cumberers of the ground—those that are hurtful, he destroys as his enemies—and those that are useful, he perpetuates, for labor or for food.

(*To be Continued.*)

ART. 177.—*Report on the Fair of the American Institute, of N. Y. held October*, 1829.

The Executive Committee of the American Institute, intrusted by that body to conduct and hold the Fair; to award the premiums; to raise the necessary means to meet its contingent expenses; and generally to carry the same fully into effect,

Respectfully Report:

That they have caused the Fair to be held at Masonic Hall, in the city of New-York, pursuant to public notice, on the 14th, 15th, and 16th days of October; and that it was afterwards continued for several days, in compliance with the desire of a respectable portion of the community, and in accordance with the opinion of the Committee.

The Committee deem it their duty to give a brief sketch of the Exhibition, which, for its success and beneficial effect, has heretofore had no parallel in this country. The few who had minutely regarded the progress of Domestic Manufactures, in this section of the country, were, perhaps, aware of what might be expected from an exhibition of the various specimens of our domestic products; but the great mass of the community, who, in their in-

tercourse with the world, provided themselves with the thousand products of Manufactures, either did not observe, or could not distinguish them, from articles of the same description which had theretofore been imported. The exhibition of more than one thousand choice specimens, in one room, broke this spell. More than thirty thousand visitors attended, who were principally destined to be convinced, in the only way that most people can be convinced, namely, by seeing with their own eyes, and believing through their own senses.

A most gratifying and triumphant spectacle was presented, in the perfection of the various articles exhibited, and the degree of surprise and pleasure testified by those who witnessed it. Even those who had attentively watched the progress of the arts in our country, were compelled to acknowledge their astonishment at the extent of the display; and arguments in favor of a protecting tariff, were thus furnished to the beholders, through the medium of the eye, which otherwise would never have reached the tribunal of their reason.

When entering upon their duties, the committee felt a deep solicitude on account of their limited pecuniary means. The plan was adopted, to impose a trifling tax on the admission of visitors, and although they feared it to be one of questionable success, yet they had a reliance on the deep interest felt by the community in the cause; and knowing that the want of means would as effectually crush the effort, as the failure of attracting public attendance, they determined to test the liberality of the community—nor were their most sanguine hopes disappointed; a gross sum of about $1600 was received without a murmur, and thus the expenses of the Fair were abundantly provided for, leaving a considerable balance in the coffers of the Institute.

The committee took into consideration the most satisfactory method of rewarding successful competitors; and from an extensive consultation with the manufacturers themselves, they have been convinced, that merit is better rewarded by diplomas, than by pecuniary compensations—the object of all praise-worthy emulation being rather *reputation* than *gain*.

Under this conviction, a large and well executed copperplate was provided, and impressions distributed in conformity with the decisions of disinterested judges.

To those who had not an opportunity of attending the Fair, during any of the six days or evenings of its progress, the following sketch from the pen of one of the members of this committee (published at the time) presents a view, which, perhaps, is as comprehensive and perfect as the present occasion calls for.

"Every circumstance in relation to this exhibition, gives proof of the great interest taken by our citizens in domestic industry; and the proud specimens of ingenuity which adorned the great hall appropriated for the purpose of displaying them, attracted, during nearly the whole of last week, continued throngs of spectators. Rarely has there been any occasion that has operated so extensively, and so intensely on the feelings of the people of this city. The high and low, the fashionable and unfashionable, the rich and poor, seemed alike to partake in the general sentiment that prevailed. But the mass of the visitors were from the middling classes—that portion of our citizens which compose the bone and muscle of the community. We risk nothing in saying, that this exhibition greatly surpassed any thing ever before witnessed in our country. Though the last year's Fair was highly approved, not much more than one half of the number of articles were brought together; and since the last year, many new specimens have been produced, which, for skill as well as novelty, commanded the admiration of those who came to the Fair this year. The power loom, the card making machine, the printing press, the silk and cotton spinner, and the steam engine were wanting to give motion and life to last year's entertainment. About six hundred feet of tables, besides the sides and ends of the great hall, were covered with choice articles made by American hands, with an immense variety of curious workmanship of the needle and the loom, with paintings and engravings, suspended from the walls and the gallery, all calculated to heighten the scene, and to impress on the beholders that this was the chosen land of art, of genius and invention. Such was the view presented when the spectators left the room late on Saturday evening.

On Monday evening following was the time appointed for the address. Nothing was expected to be seen, but the hall, stripped of every thing but seats for the accommodation of the audience. How astonished were the visitors on entering, to find, at the opposite part of the hall, as if raised by magic, an allegorical temple, twenty-two feet in height. The arches of this temple were supported by four columns, sixteen feet apart, and of the same height. This temple was dedicated to the memory of Alexander Hamilton. His bust, crowned with laurels, was placed near the centre of the temple, among evergreens on a splendid transparency of painted glass, which enclosed twenty-four burning lamps. Each of the pillars designated different departments embraced in the charter of the Institute.

The first pillar on the left, facing the entrance into the hall, represented Agriculture—the base of

which was formed by a variety of the green products of the farm, such as corn, &c., mingled with some of the heavy utensils of agriculture. The capital was adorned with sheaves of wheat, so disposed of as to give an architectural aspect: and the intermediate space from the base to the capital was made up by implements of husbandry, such as the plough, the cradle, the rake, the fork, and the shovel, with nearly every implement used by the husbandman, curiously combined with cotton, rice, indigo and tobacco plants, sugar cane, the Isabella and other native grapes, oranges and lemons hanging on their branches contiguous to limbs from our orchards loaded with apples. In fine, most of the products of the garden and the field might be found in this column, ingeniously intermingled and tastefully adjusted.

On the right was a column representing manufactures, formed by an almost endless variety of the products of the spindle and the loom, and the varied fabrics of our workshops. The base was in part composed of woollen, cotton, flax, and hempen fabrics; American iron and steel, in various forms. The capital of the column was formed with hats, caps, &c. differing in their materials, colors and shapes. Intermediate was seen the ingenious workmanship of our mechanics and manufacturers, curiously inwrought, and combined with coils of wire, of iron, steel, and brass; choice executions of parts of spinning machines; an entire spinning wheel; boots, shoes, shuttles, brushes, coach laces, the new invented felting cloths, paper hangings, thread and silk laces, imitation bandannas, chemical preparations, &c. fantastically formed. All these, with numerous unnamed productions, were so intermingled and combined as to form a pillar, that, in its general appearance, did not violate the laws of architectural taste.

Directly beyond the agricultural column, was a pillar, representing Commerce, formed with equal ingenuity. Kegs of merchandize, bales of sail duck and sail twine, and piles of ledgers, formed the base; the capital exhibited the model of a steam-boat, a ship and a man-of-war; between which and the base, were coils of ropes and cordage, nautical instruments, a globe, &c.: various products of other states, in bags and kegs, anchors, canvass, &c. and over all a chain cable, passing spirally up the column, and holding it together.

The last of the four pillars represented the Arts. This presented the most brilliant appearance of the whole. Among other things, at the base, was a printing press. The capital exhibited clusters of carved grapes, and a small model engine, stone vase, &c. The residue of this column was made up from numberless specimens of art shown at the Fair; among which were brilliant fire fenders; polished coal scuttles, that vied with the most perfect gilding; paintings and engravings with the most costly frames; cases filled with the highest polished knives, forks, &c., fantastically disposed of among carpenter's tools; varnished leather; steel and wood carriage springs; a case of highly finished lamps, brass nails, &c.; flint ware pitchers, on the model of those found in the ruins of Herculaneum; cast iron hubs for carriages; drawing knives; planes; musical instruments, such as flutes, clarionets, &c.; smoothing irons; imitation paintings of maple and mahogany; a small portable steam engine; whips; saddlery of various kinds, including bits, stirrups, lamps, &c. and the most highly polished shovels and tongs; all of which were so arranged and placed as to form a well proportioned and splendid column.

On the pinnacle of the arch sat a large native eagle; a scroll, with the motto of the state, in golden letters appended from its mouth. Directly under, were suspended the scales of justice. Four scrolls, hanging in festoons, extended from the apex of the arch to the four columns, on which were severally inscribed, in large letters of gold, AGRICULTURE, MANUFACTURES, COMMERCE, AND THE ARTS, each extending to the capital of its appropriate column.

In the rear of the temple a stage was erected, and on it a wool sack, at a little distance in front of which was a bale of cotton. Early in the evening, two of the Vice Presidents attended with the other officers of the institute, and took the seats prepared for them. The two Vice Presidents were seated on the wool sack, the executive committee on their right and left, with the two Secretaries in front, during which time a band of music played from the gallery. After a short interval the meeting was called to order, the premiums announced, and the diplomas awarded to the successful competitors. When the ceremony was finished, General Lynch ascended a stage prepared for him, and pronounced an interesting discourse. The marked approbation of the numerous audience, is the best encomium that can be bestowed upon it. Suffice it to say, that many of his hearers have since declared, that there was an intimacy of connexion shown by him to exist between manufactures and commerce that they had never understood before. Immediately on the closing of the address, the favorite tune of "Hail Columbia," was struck up from the orchestra, which seemed to add new inspiration, and raise the patriotism of the audience to a higher pitch than ever.

Before the audience dispersed, they were invited

to pass an opening prepared for them, through the temple ; after which, they retired.

Thus ended the second Fair of the American Institute, to every appearance one of the most satisfactory displays that has ever been exhibited in our country, and calculated, in its effects, to produce incalculable good. By it, ingenuity has been stimulated, industry will be promoted, and our country rendered more independent, and all our patriotic attachments strengthened and confirmed.

The order that was preserved during the whole period, notwithstanding the unprecedented concourses which the occasion at times brought together, does honor to the character of our city, and shows us that there is a potent and salutary moral influence pervading this commercial metropolis, that almost supersedes the necessity of any other restraint. It is the spirit of our religion, our laws, and our government, operating on the people. May this spirit ever continue to operate in its highest perfection."

Beneficial sales of goods, to a large amount, were effected by the proprietors, and extensive orders were also received to be executed during the current year.

The foregoing is an imperfect sketch ; to go more into particulars, perhaps, would be tedious ; to have said less, would have been unjust. We may truly say, such a collection of matter and things, surrounded by thousands of spectators, the buz of curiosity, the echo of approbation, the silence of scrutiny, and the undeviating expression of pleasure, and satisfaction exhibited in every countenance, spoke, in the whole, a language, too intelligible to be mistaken ; and, it is hoped, established a confidence in the genius and power of our country in the department of manufactures, too deep to be transient, and too sincere to be removed.

The Committee deem it their duty to tender the thanks of themselves and the body they represent to the members of the Senate, to the judges of the courts, and the professors of the colleges of the state, for their countenance and presence at the Fair on this occasion. That the same should have received their approbation and good opinion, is a source of congratulation and pride to the Institute ; and it affords to the community an additional evidence, (if necessary) of the correct principles of such institutions. To the corporation of the city of New-York, they also tender their acknowledgments for the loan of sundry articles of fixtures, without which the exhibition would have been less imposing.

On the evening of Monday, the 19th of October, pursuant to an arrangement and public notice, the annexed Address was delivered before a crowded auditory.

The Committee have nothing to add, but the following recommendation to manufacturers and to the American Institute, viz. that the latter forthwith proceed to advertise the time and place of the next Manufacturers' Fair ; and, to the former, they urge the propriety of longer preparation, and they cannot doubt this expression of their wish will meet with strict attention, when it is reflected, that it is a matter of more magnitude to the mechanics and manufacturers, individually, than to the public at large, and of deep interest and profit to both.

The Committee, in conclusion, recommend an Agricultural Fair to be held under the auspices of the American Institute, at Castle Garden, in the city of New-York, in May or June next.

R. Donaldson, H. M. Western, T. B. Wakeman, } *Executive Committee.*

ART. 178.—*Remarks on the Prospectus of the New-Jersey Polytechnic Institute.* Published in Vol. 2, p. 264. [To the Editor of the New-York Farmer.]

A *laboring school* is a grand desideratum ; but I have given you my doubts and queries in regard to its feasibility in a former volume. I am delighted that a trial is to be made, *in good earnest*, in New-Jersey. My zeal for the success of the enterprise, induces me to suggest to its projectors the following hints. If the projectors are governed by liberal views, they will accept these remarks with good feelings from one who has had more than seven thousand pupils, and applied various schemes for their instruction in practical science as auxiliary to "the business of living."

I object to the sixth proposition, p. 265, which promises facilities "which are found in no pre-existing school, academy, or college, in these states." This remark is calculated to create enemies to the school, inasmuch as it is well known, that the projectors have no experience, even in their own scheme. It is assuming to know more by mere theory than many centuries of experiment have taught. We are all desirous to learn the result of the trial ; but not a man on earth will place full confidence in mere theory. In the next paragraph, it is intimated, that the best methods of giving instruction will be taught, when the projectors are not even acquainted with the effect of their own proposed method. Such expressions excite hard feelings, unnecessarily. I give this hint, because I am exceedingly desirous to see the plan succeed, and because the favorable opinions of the learned, of the liberal, and of the great, are essential to its success.

A few remarks, which are the result of rigorous trials for five years, may not be useless. As I have been uncontrolled by want of funds for the last five years, I have made every kind of trial, which my own imagination and that of numerous advisers could suggest. And I have come to the following conclusions.*

1. The course of education, pursued for several centuries, requires improvement.

2. Improvements should not be too hastily attempted. Mankind have never become wise in a day. The human intellect is still clogged with its "clay tabernacle." He who believes he has all at once burst the limits of human knowledge, is entitled to no confidence as a teacher or projector.

3. The predisposition to oscillate to extremes, should be strenously opposed by all patrons of learning. Our colleges may occupy too much of the learner's time with particular branches, on account of the few years allotted to an education in this land of industry and economy. But no branch is studied too long there by those who have time enough. To condemn any of our collegiate branches betrays the most consummate ignorance of those branches; especially the learned languages.

4. I do not believe, that our colleges always introduce students to the various branches of knowledge in the best order of procession. Five years experience has taught me, that teachers should enlist the senses and memory first—the judgement last.

Natural science, taught by sensible objects, should be introduced first—the sciences of reflection last. Dr. Yates, of the Polytechnic School in this state has, in my opinion, taught the true art of communicating instruction in the order of nature.

5. Experience has taught me, that students should never be occupied with more than one subject of study at a time. The ridiculous practice of reciting several subjects in a day, grew out of that puffing practice of giving an unwieldy catalogue of authors studied at the schools. It may serve as a "gull-trap" for the ignorant, but every man of real learning is aware of the fraud, and despises the authors.

6. Collition of talent is all important for young gentlemen to prepare them for meeting the buffetings of the world. Our colleges are well adapted to this object in their general course. But I would add, and do add, severe criticism to be made by fellows. I believe this practice is adapted at the Theological seminary at Princeton, N. J. as well as at Rensselear school.

7. Declamation, of committed pieces, begets a school-boy rant, which requires one full year to unlearn. It should be avoided as a pestilence. Extemporaneous lectures, and essays, prepare young gentlemen for all vicissitudes of life: and by substituting it for formal *yes* and *no* recitations, the student is taught to make the subject of study his own.

8. Students should always perform some corporeal service in the afternoon, never in the forenoon. Sleep will then be healthful and sound. But this exercise should be of the useful kind; such as land surveying, engineering, or other instructive or useful labor. A *Gymnasium* is a contemptible nuisance—boyish, silly, and a ridiculous waster of time. It scarcely deserves civil treatment, though it has a classic sound. So have knight-errantry, and other ancient, middle-age follies. It is a gull-trap for fools, degrading to an honest man. Fortunately, it is now abandoned in most of those schools in America, where it was first introduced.

I may trouble you with further remarks, particularly in reply, should any one do me the honor to controvert the positions here taken. As few of the preceding remarks can apply to the Rensselaer School, I shall not be accused of self-approbation. I claim to have much experience in new modes of teaching; and should be pleased to meet any experienced teacher, (by name, not anonomously) in your paper, on the ground of fair discussion on that subject.

AMOS EATON.

Rensselaer School, Troy, Dec. 24, 1829.

* I suppose it is generally known, that the Hon. Stephen Van Rensselaer has expended many thousands to enable us to make experiments upon the youthful mind; and that to his liberality the public is indebted for the present improved state of Rensselaer schools.

ART. 179. *Plants feed on Air.* [For the New-York Farmer, and Horticultural Repository.]

I wish Professor Eaton had given us "three minutes [more] reading," in his communication, page 256, in explanation of the fact he meant to establish, or to illustrate. According to my reading, he advances an erroneous doctrine. It would seem, from the answer he gives to the query of the "illiterate farmer," that the gasses, carbonic acid, ammoniacal, &c. which float in the atmosphere, constitute the material food of plants; and that supplied with these, and an abundance of pure water, they will grow as well in pulverised glass, as in the fat alluvial soil on the Schoharie Kill. This seems really "the poetry of Agriculture." That air is necessary to vegetable, as well as animal life, no one will deny; but that it will long sustain either unaided by other food than water, is a position at variance with the universal experience of practical men, as well as the inductions of science. The

professor *ought* to know, that rain, and all other *pure* water that has not undergone distillation, contains more or less vegetable food, and that plants, to a certain age, feed almost exclusively upon the nutriment contained in their cotyledones, bulbs, &c. It has been demonstrated by physiologists, that air and water, with the auxiliary aid of pure earths, are insufficient to develope and mature the growth of plants. Gisbert mixed together lime, clay, sand, and magnesia, in full proportions as are generally to be met with in fertile soils, and nourished them with water and air. Several different grains were then sown in this artificial soil; which germinated, indeed, but did not thrive, and perished when the nourishment of the cotyledones was exhausted. [*See Enc. of Ag. p.* 231.] As a general law, I believe, that whatever has been a plant, which embraces animal matter, is food for plants, under certain modifications, and in certain proportions; and that this food can only be imbibed through the medium of air and water. It is diffused, in a gaseous form, through the atmosphere; but exists principally in the soil: And it is well understood by practical men, that the growth of plants depends principally upon the quantity of vegetable and animal matter, and its soluble properties, existing in the latter.

If I have misapprehended the Professor, in the inferences I have drawn from his facts, I hope to be set right. If not, I cannot but lament that error, on so important a branch of vegetable physiology, should emanate from so high a source, as the head of an Agricultural School.

A Freshman.

Albany, Dec. 23, 1824.

Mr. Editor,—The following article, taken from the Journal of Health, although not having reference to the tillage of the soil, may not be unappropriately inserted in the New-York Farmer. It shows that the Creator has fixed in the laws of nature a reward to those, who, by their industry and frugality, lay up a sufficiency to save the body from excessive toil, and to free the mind from distress for the present, and painful apprehensions for the future. F.

ART. 180.—*Average Mortality in different countries of Europe.*

The annual deaths, on an average, throughout the whole of England and Wales, is nearly 1 for every 60 inhabitants. In the Pays de Vaud the average mortality is 1 in 49. Sweden and Holland present the same standard, or nearly 1 in 48. Next on the list is Russia, where the mortality is 1 in 41. In France, 1 dies annually out of every 40—a proportion precisely similar to that of London. It is calculated that in France, about one half of those born live to 20 years, while a third live to 45 years. The lowest annual mortality is at the age of 10, when it is only 1 in 130. At the age of 40 it is 1 in 53. The probable duration of life in France, at the age of 50, is 23 years. The mortality increases among the poor, and diminishes among the affluent. In the wealthy departments of France, life is protracted 12 years beyond its course in those which are poor. According to Dr. Hawkins, a recent writer on medical statistics, the conservative tendency of easy circumstances is strongly evinced in England. In proof of the same, is the very inferior degree of mortality and disease which occurs among persons insured at the various life-offices. It was found in 1810, that the deaths which had occurred among 63,000 persons, insured during 30 years, was only 1 in every 81 1-2, being in the proportion of only 2 to 3 of what had been anticipated from the ordinary tables of the probabilities of life. Among these *selected* lives, the mortality of the women was still less than that of the men; females in the middle classes enjoying a remarkable exemption from fatigue and harass. Of 1000 members of the University Club, only 35 died in 3 years, or about 1 in 90 annually. It is stated, that of 10,000 pupils who passed in different years through Pestalozzi's institution, in Switzerland, not one died during his residence there. They were chiefly youths, but of all countries, constitutions and ages; generally, it is to be observed, in easy circumstances. Pestalozzi, also paid particular attention to their bodily exercises. On the scale of comparative mortality, Austria follows France; the annual mortality being in the proportion of 1 in 38. In Prussia and Naples it ranges from 1 in 33 to 35. The average mortality of the principal cities of the south of Europe is as follows:—Leghorn, 1 in 35: Madrid, 1 in 29: Rome, 1 in 25: Palermo, 1 in 31.

At Geneva, in Switzerland, correct tables of death have been preserved since 1560, and the results are in the highest degree curious and satisfactory. It appears that, at the time of the reformation, half the children born did not reach 4 years of age: in the 17th century, the probability of life was about 11 1-2 years: in the 18th century it increased to above 27 years. We arrive hence at the remarkable conclusion, that, in the space of about 300 years, the probability of prolonged life to a citizen of Geneva at his birth, has become five times greater. The *mean life* was thus: in one century, 18 years: in the next it grew to 23: in the middle of the next, it rose to 32: and finally, during the present century, from 1815 to 1826, it amounts to 36 years.

ART. 191.—*American Flowering Plants.*

[For the New-York Farmer.]

Collinsia verna, (named in honor of ZACCHEUS COLLINS, of Philadelphia) is a plant remarkable for the delicacy and beauty of its parti-colored flowers. It grows indigenously on the banks of the Ohio, on the flats near Buffalo, in the neighborhood of Rome, and in other places; but its localities appear to be,

"few and far between."

Early in the summer of 1828, finding no seeds sufficiently ripened, I removed some plants from the flats of Buffalo creek, with earth round the roots, wrapt in damp moss, to the distance of 130 miles, and planted them in my garden. By means of occasional watering, although it is *a biennial*, the declining vegetation was supported till the seeds were perfectly matured.

The seeds which drop from the capsules, germinate in the latter part of summer, or beginning of autumn; and generally produce from 4 to 6 leaves, before the commencement of severe weather. No more care is required than for larkspurs, or for *Coreopsis tinatoria*, and the seedlings appear to be equally hardy.

In the spring of 1826, at Lewiston, near the Niagara river, I was first delighted with the prospect of extensive beds of *Houstonia ciliolata* in full bloom. The flower is white, or tinged with red, and though small, makes up the display in numbers. The leaves are evergreen, and crowded. I have planted more than 50 rods of it as *edging;* the roots appear sufficiently strong for this purpose; and from its moderate growth, it will be less troublesome than even *Sisyrinchium anceps*. It increases like *Statice armeria*.

This new species, as far as I have learned, is peculiar to the region of the Niagara river, and Dr. TORREY, who described it, received his specimens from Goat Island. I found it a mile from the Falls, near the road to Lewiston.

Of our wild flowers, however, few agree with culture so well as *Campanula rotundifolia;* and few continue to decorate the garden for so long a time as the fine blue bells of this plant. Though its localities are rare, it appears indifferent to the soil, if cultivated; and, unlike most of the ornaments of our forest lands, it bears well the full blaze of a summer sun.

Now permit me to mention some plants, which, *after much inquiry*, I have not been able to procure, in hopes that some reader of the New-York Farmer may place either *roots* or *seeds* within my reach, and name the most acceptable return that I can make.

Silene virginica. Root perennial. "A fine plant, 18 inches or 2 feet high, with beautiful crimson flowers." BARTON. "This species abounds in the southern and western states." TORREY.

Silene regia. "Root perennial. Stem 4 or 5 feet high, much branched; flowers large, bright scarlet, and very numerous. One of the most splendid species in existence. Throughout the Western States, sparingly from Ohio to Lower Louisiana." NUTTALL.

Silene rotundifolia. "Decumbent (lying) stem, calix, and margin of the leaves, very pilose (hairy.) A very singular and beautiful species, with bright scarlet flowers. In Ohio and Tennessee, on the moist ledges of rocks—flowering in July, August." NUTTALL.

Lithospermum hirtum—Anchusa hirta—Batschia gmelini. "Root perennial. Stem 10—16 inches high, several from the root. Flowers, bright orange. This is a very ornamental plant, and merits a place in every flower garden." ELLIOTT. "In Pennsylvania." MAHLENBERG. ("Common in the middle country of Carolina.")

Very respectfully,

DAVID THOMAS.

Greatfield, 12 mo. 23, 1829.

ART. 192.—*Extracts from an Address delivered before the Massachusets Horticultural Society, on the first Anniversary Celebration, Sept.* 1829.—By H. A. S. DEARBORN.—*With Remarks by the* EDITOR.

Gen. Dearborn, president of the Massachusetts Hor. Society, judging from the productions of his pen on rural subjects, is an active and enlightened horticulturist. He is one among the many of our distinguished citizens, who have, within a few years past, more publicly entered that path of honor and fame, which leads to individual and national prosperity and happiness—the peaceful culture of the soil.

The address of Gen. D. is very chaste and interesting, bespeaking the scholar in general literature, and much acquaintance with the history of nations in the rural arts. We should be much pleased, if our limits permitted, to insert his address entire; but must content ourselves with a few extracts, after respectfully suggesting to the author, a reconsideration of the pages devoted to the history of horticulture. Do they not tend to confirm the impression, which is already too much indulged by our countrymen, that even useful and tasteful horticulture is the production of overgrown wealth and luxurious refinement? If the "Almighty sanctioned the peerless beauties and refined pleasures of

a garden for the progenitors of the human race," why is it necessary that "power and glory, wealth, and extended domination; music, poetry, eloquence, painting, sculpture and architecture, should be zealously pursued and successfully attained," before "horticulture unfolds her endearing attributes, and exalted beauties?" Much of history, we grant, shows that this has been, but it does not prove that it necessarily will continue to be, the case.

We will now proceed to make our extracts:

"The co-operation of individuals, by the means of variously organized societies, for the accomplishment of objects of public utility, and general, local or private interest, is a discovery of the moderns and has been one of the most efficient means of accelerating the progress, and enlarging the bounds of knowledge. They have explored the vast Herculaneum of antiquity for those treasures of intellect, which once gave lustre to empires, and traced the history of the inventions, discoveries and improvements of all ages; they have collected the facts of isolated research, and the valuable results of private experiment; they have brought to light the labors of unobtrusive genius, rendered local information available to all, and concentrated the scattered intelligence of nations, in every department of science and art. With the facilities afforded by the wonderful art of printing, they are substitutes for, or have superseded that long checherished desideratum, a universal language; for whatever is valuable, merits attention, or is worthy of adoption, in the writings of the ancients, or the publications of existing nations, is speedily acclimated and rendered as familiar, as if it were of indigenous growth. There is still another glorious advantage in these institutious, most honorable to the human race;—in war, as well as in peace, their names become the paroles of intercourse between the republics of letters, of science and of arts, round the globe.

"Having witnessed the happy effects of associations for the promotion of literature, natural history, physics, agriculture, the mechanic, economical and fine arts, we may confidently anticipate that the same salutary influence will be experienced in the operations of horticulture, by the harmonious labors of those numerous societies, which have been founded for its encouragement.

"The literature, history, science, art and practice of gardening, open a wide field for study and inquiry, and present exhaustless sources of pleasure, instruction and wealth. Blessed is the man who participates in these enjoyments. They are not too humble for the most exalted, or beyond the reach of honest and retiring industry. It is a banquet of reason, at which wisdom and health preside, and where the amphictyons of genius and taste revel, in the unsatiating luxuries of nature and intellect.

"The scientific relations of Horticulture are numerous, and require an extensive acquaintance with the various branches of Natural History and Physics. Botany, Mineralogy, Hydraulics, Chemistry, Architecture and Mechanics, are called upon to furnish their several contributions; and it is the special province of the artist, to render them subservient to his practical operations, by a judicious application of each to its appropriate purpose.

"In this pursuit, as in all others, practice has been too long estranged from scientic theory. Each has had its professors and disciples, but without any reciprocation of benefits, or scarcely the recognition of affinity. Science was cultivated as an abstract mental embellishment, rather than to facilitate the labors of the artist, while the arts have been practised, unaided by the instructions of science. The latter was deemed too etherial and sacred to pass even beyond the seclusions of philosophy, save in a language which was unintelligible to the multitude; and the unitiated operator accomplished his work, ignorant that he was successfully performing an experiment, which depended on established theoretrical principles, as the scientific was incapable of illustrating the correctness of his theory, by actual experiment. There was an ostentatious display of intelligence without practical utility, while the useful, unaided by intelligence, was but imperfectly practised. But more comprehensive and liberal views are now entertained, and it is the enlightened policy of modern instruction, to effect a re-union of science and art, of theory and practice. We behold philosophy directing the labors of a work-shop, and practical mechanics giving instruction in the halls of science. The happy consequences of this moral revolution; its exhilarating influence on all the economical, as well as the ornamental parts, are apparent, in the unparallelled prosperity of those nations, which have taken lead in the development of mind, the encouragement of industry, and the prudential management of their natural resources.

"The unnatural alienation of the sciences and arts, which so long retarded every other branch of national industry, had the same deleterious effect on tillage, which was also doomed to encounter other difficulties, eqnally, if not more discouraging. It was too generally considered as a degrading occupation, and was scarcely ranked among the pursuits of the learned and affluent, until Lord Bacon and the erudite Evelyn, deemed it worthy of attention, and gave it the sanction of their illustrious names.

"The first English treatise on rural economy, was Fitzherbert's "Book of Husbandry," which was published in 1634. Tuser's "Five Hundred Points of Husbandry," appeared about thirty years after, and was followed by Barnaby Googe's "Whole Art of Husbandry," and "The Jewel Houses" of Sir Hugh Platt. Early in the eighteenth century, the celebrated treatise of Jethro Tull excited much attention, and several new works of considerable consequence were announced before 1764, when the valuable publications of Arthur Young, Marshel, and of numerous other authors, spread a knowledge of cultivation, and cherished a taste for rural improvements throughout Great Britain, which has rendered that kingdom as distinguished for its tillage, as for its advancement in manufactures and commercial enterprise. Agriculture has covered her barren heaths with luxuriant crops, converted her pools and morasses into verdant meadows, and clothed her bleak mountains with groves of forest trees,—while horticulture is rapidly extending her benificent and gladsome influence, from the palace to the cottage, and adorning the precincts, or overspreading the entire regions of her adventurous precursor.

"After the immortal Linnæus published his "System of Nature," Botany became a popular science, and its numerous votaries produced a variety of interesting elementary works, which, with those of Miller, Wheatley, Abercrombie, Repton, Price, Maddock, Panty, Sang, Loudon and Knight, the British Columella,—rapidly diffused intelligence among all classes of society. A passion for experiment and ornamental planting was thus induced, which give sufficient promise, that what had been figuratively expressed, might be, ultimately, realized, and the whole island become, in truth, a "Garden."

"Architecture claims a conspicuous rank among the arts, which are subservient to rural economy; but in the United States it cannot be expected, that individuals should indulge, that natural propensity of man, for magnificent edifices; still their establishments may assume the beauties of a refined taste, and be made to harmonize more perfectly with the purposes of their appropriation, and the scenery in which they are embowered, without enhancing the cost of construction. The error has not been merely that of negligence in the plan, indifference as to location, and a disregard of all the characteristics of the various orders of architecture; but in the heedless selection of materials, an ostentatious extravagance in the size, and a wasteful exuberance of fancied embellishments.

There being no law of primogeniture in the American Republics, estates are continually subdivided, until each portion is so reduced, as not to exceed the means of general occupancy; whatever sums, therefore, are lavished on a country residence,* beyond the conveniences and comforts usually required by the great mass of the freeholders, are lost to the heirs, and often prove ruinous to the aspiring projector.

"We admire what has been done in other countries, and possessing means ample as the actual proprietor of the stately edifice, rashly imitate the pleasing example, without reflecting, that what we behold, has been the work of successive heirs, during the lapse of ages, and will descend, with increasing grandeur, to countless generations.

"If stone be substituted for wood, utility and neatness for extent and fantastic ornaments, and less be expended on the structures, and more in improving the grounds, each farm would be rendered intrinsically more valuable, and the whole country would assume that flourishing, picturesque, and delightful aspect, which so emphatically bespeaks the prosperity, intelligence, and happiness of a people.

"The natural divisions of Horticulture are the Kitchen Garden, Seminary, Nursery, Fruit Trees and Vines, Flowers and Green Houses, the Botanical and Medical Garden, and Landscape, or Picturesque Gardening.

"Each of these departments requires to be separately considered and thoroughly understood, in all its ramifications, before it can be ably managed, or all so happily arranged, as to combine utility and comfort, with ornament and recreation. To accomplish this, on a large scale, and in the best manner, artists and scientific professors are employed in Europe, and are much required in this country. Hitherto their services have been generally supplied by the owners of the soil, who, as amateurs, have devised and executed plans of improvement, which do honor to their taste and skill, and encourage the hope, that these laudable examples of successful cultivation, will have a salutary influence throughout the Union.

"The Kitchen Garden is an indispensable appendage to every rural establishment, from the stately mansion of the wealthy, to the log-hut of the adventurous pioneer, on the borders of the wilderness. In its rudest and most simple form, it is the

* Had the writer said, 'on country residences generally,' he would have been more strictly correct; for, although we have no law of primogeniture, still the difference in the wealth of our citizens will save some estates from being subdivided. *Ed.*

nucleus, and miniature sample of all others, having small compartments of the products of each, which are gradually extended, until the wholeestate combines those infinitely various characteristics, and assumes that imposing aspect, which constitutes what is graphically called the picturesque.

"The details of each grand division of Horticulture, cannot be embraced within the range of such general remarks, as propriety seems to prescribe for an occasion like the present. They are to be sought in the works of the learned, and rendered familiar, by precedent and progressive experiments. The field is ample, and requires an untiring perseverance to gather in the rich harvest of instruction, and render it practically available. That this may be achieved in the most economical, speedy, effectual, and satisfactory manner, Horticultural Associations have been deemed indispensable.—They excite the public interest, foster a taste for the useful and ornamental branches of culture, and stimulate individual exertion; by the distribution of entertaining and instructive publications.—by a correspondence between the officersand among the members of like institutions,—by the establishment of libraries,—by premiums for rare, valuable, beautiful, early, or superior products,—important discoveries, estimable inventions, excellence of tillage, and meritorious communications,—by periodical meetings, for the interchange of opinions and mutual instruction,—by public exhibitions,—and by collecting and disseminating seeds, plants, models of implements, and information on all subjects, connected with the theory and practice of gardening.

"Numerous esculent vegetables, delicious fruits, superb flowers, ornamental shrubs and trees, cereal, vulnerary, and medicinal plants, and others subservient to the arts, manufactures, and public economy, both exotic and indigenous, are either unknown to us, or but partially cultivated. Several varieties which have been obtained from the equatorial regions, and confined to the shelter and warmth of green houses, stoves and conservatories, have been found to bear the severities of a boreal winter, even when first exposed, or have been gradually acclimated; and many are annually detected in every quarter of the globe, which deservedly merit naturalization; and still what numbers are "born to blush unseen and waste their fragrance on the desert air."

"Most of our common fruits, flowers and oleraceous vegetables were collected by the Greeks and Romans from Egypt, Asia, and other distant climes, and successively extending over Western Europe, finally reached this country. But so gradual was their progress, 'it was not till the reign of Henry VIII, that any sallads, carrots, turnips, cabbages, or other edible roots were produced in England. The little of these vegetables that was used, was imported from Holland." Fuller observes, that "Gardening was first brought into England, for profit, about the commencement of the seventeenth century, before which we fetched most of our cherries from Holland, apples from France, and hardly had a mess of rath-ripe peas, but from Holland, which were dainties for ladies, they came so far and cost so dear."

ART. 193.—*Tariff Law.—Extract from a Pamphlet on Frauds on the Revenue.* By Peter H. Schenck, Esq.

It was one object of the Tariff Law of 1828, to protect the wool growers and woollen manufacturers of this country. But no law ever more completely failed to answer the purpose intended. Wool and woollen goods are 20 per cent. lower in price, than when he law was passed, and both growers and manufacturers are injured, instead of being favored by its operation. Some of the friends of the measure, in Congress, supposed they were securing a domestic market for our own merino wool, by fixing a high duty on cloths, costing between the minimums of 50 cts and $1 per square yard, and between $1 and $2 50; whereas, much finer cloths have been introduced, under these minimums, by averaging bales containing fine and coarse pieces, and by fraudulent invoices, to such an extent, as wholly to defeat the object of protection. Cloths, costing 60, 70, or 80 cents per square yard, are introduced under the 50 cent. minimum; and cloths costing $1 20 to $2, per square yard, are brought in under the dollar minimum, and consequently pay about half the duty that was intended by the law to be imposed on them.

Nineteen twentieths of all the woollen goods imported into N. York, are believed to be on account of foreign manufacturers and traders, who, to say the least, rarely fail to invoice them *under* their cost at the place of manufacture, or under their market value at the place whence imported! Most of these goods come consigned to foreign agents resident here, many of whom are not naturalized citizens; yet their bonds are taken for the duties at the Custom-House—it being required only, that one of the parties to each bond should be a naturalized citizen. In many instances they are, or pretend to be, part owners of the goods; in which cases, the certificate and oath of the foreign consignor are not required to accompany the invoices.

ART. 194. *Letters from a Gentleman on a Tour through the Middle and Western States.*—Continued from page 217. [To the Editor of the New-York Farmer.]

City of Washington, June 15, 1829. This has been quite an interesting day; we started early after breakfast and rode round from Georgetown, by the college, the residence of Mr. Adams (the late president) and also passed a number of very pleasant situations, the Capitol almost constantly in sight. We were disappointed in the appearance of the interior of the Capitol, as well as the grounds which surround it. The latter, we were told, have been recently much improved. From the terrace on the west front of the Capitol is a splendid view of the surrounding country. A description from a recent visitor, published in some of the newspapers, is very just, and I enclose it, believing it better than I can describe.

Capitol, City of Washington.

The contrast between the Capitol and its grounds now, and their condition ten years ago, is almost inconceivable. The building was then unfinished, and the grounds rude and unimproved. No one can now stroll along the terrace on the west front of the Capitol, without admitting that it is one of the most beautiful promenades in this country. The rich and verdant appearance of the glacis, contrasted with the white walls of the building, the magnificent natural amphitheatre formed from the hills around the city, the green masses and cultivated slopes at a distance, the silvery line of the two rivers, the soft and aromatic breeze in a moonlight summer night, and the inspiring grandeur of the edifice itself, form, altogether, a scene that but few, if any other portions in the world can boast. The belt of the native trees and shrubs around the walls is flourishing rapidly, and begining to afford a fine shade to correct the intensity of the summer heats, and to restore all the beauty of woodland scenery to the very centre of the city. The interior of the square too is considerably improved; the walks are, for the most part, laid off and gravelled, and bordered by rows of elms, linden, and silver fir. Nothing can be more agreeable than the stroll inside and along the walls of this square in the morning and evening; and it is a matter of surprise that, with an appendage like this, uniting almost all the comfort and beauties of an English park and plantation, the dwellings are not more sought after and occupied. In a few years there will be nothing in this country that can be compared to it; and we are sure that this vicinity must finally be the residence of private gentlemen of fortune who may come to dwell permanently, or for a time, among us. While on this subject, we must not omit the following remarks on our city by Baron Humboldt: "From the plan of the city of Washington, and from the magnificence of its Capitol, of which I have seen but a part executed, the *Federal City* will be one day, without doubt, a much finer city than Mexico. The vegetation on the banks of the Potomac and Delaware, is richer than that we find at 7,500 feet of elevation on the high ridge of the Cordilleras. But Washington and Philadelphia will always resemble the beautiful cities of Europe; they will not strike the eyes of travellers with that peculiar, I may say exotic, character which belongs to Mexico, Santa Fe de Bogota, Quito, and all the tropical capitals constructed at an elevation as high or higher than the passage of the Great St. Bernard."

ART. 195.—*Description and Drawing of the* CAMELLIA CLINTONIA—*a seedling raised by* MICHAEL FLOY, *Nursery and Seedsman, of New-York—and remarks on the cultivation and uses of the plant in China.*

Camellia, the genus of plants producing the article of tea, so generally used, is universally admired for the beauty of its flowers—the color of the petals varying from the purest white to the deepest crimson. The fresh greenness of the foliage, and the brilliancy of the flowers affording a contrast with winter scenery, make it one of the most acceptable and beautiful ornaments of the parlor and green-house.

Michael Floy, Esq. one of the Vice-Presidents of the N. York Horticultural Society, presented, on the 21st inst, before the council of that Society, one of his seedling Camellias, which obtained a premium from the Society. It is No. 1 to which he has given the specific name, Clintonia, in honor of the late Governor of this state, (De Witt Clinton.) It was much admired by all who saw it. We are indebted to Miss Caroline Manly, of this city, for the original drawing, which was beautifully and correctly taken, and from which we have procured a cut for this work. Mr. F. has favored us with the following description.

"The Camellia Clintonia is of the anemone flowering division, with a single row of guard, or outside petals, which are large, measuring four inches across the flower. The petals are firm and thick, expanding quite flat, and of a glossy fine scarlet colour; the anemone like centre consists of a great number of strap-shaped petals, which are white, with scarlet and pink stripes and dots, forming a round even centre, interspersed with a few yellow stamina, and showing a bold pistilla in the centre, like the old *warratah*; the base of the flower is

large and firm, which supports the flower a long time, not being subject to drop like the old Warratah. It was raised from seed of the old Warratah, impregnated with the *double striped*, in the year 1821, and sowed in the spring of 1822; the first flowers appeared in the fall of 1826." The plant displaying four open flowers at once, made a beautiful appearance; the flowers large and glossy, with the variegated centre, and the foliage handsome. We believe this is the first *seedling* Camillia that has flowered, which may be strictly called *American*, certain a beginning, and as a number will no doubt be produced, we think it very probable that the *Camillia Americana* will form a very

respectable addition to this beautiful tribe of plants. The following we extract from the N. E. Farmer.

This fine genus is named in honor of GEORGE JOSEPH KAMEL, and is remarkable as at once furnishing the domestic drug tea in universal use, and flowering trees and shrubs, as universally admired. The seeds of all the species are crushed for oil, which is used like that of hemp or poppy in cookery. C. bohea and viridis are the species which chiefly furnish the tea; but C. sasanqua is also used, and sometimes the leaves of the other species are taken, though that practice is rather to be considered in the light of adulteration. The tea districts of China extend from the 27th to the 31st degree of north latitude. According to the missionaries, it thrives in the more northern provinces, and from KÆMPFER, it appears to be cultivated in Japan as far north as the 45th degree. It seems, according to Dr. ABEL'S observation, to succeed best on the sides of mountains, where there can be but little accumulation of vegetable mould. The soils from which he collected the best specimens, consisted chiefly of sandstone, schistus, or granite. The plants are raised from seed sown where they are to remain; three or more are dropped into a hole four or five inches deep; they come up without further trouble, and require little culture, except that of removing the weeds, until the plants are three years old. The more careful stir the soil, and some manure it; but the latter practice is seldom adopted. The third year, the leaves are gathered at three successive gatherings, in February, April, and June, and so on, until the bushes become stinted, or tardy in their growth, which generally happens in from six to ten years. They are then cut in to encourage the production of fresh shoots.

The gathering of the leaves is performed with care and selection. The leaves are plucked off one by one; at the first gathering, only the unexpanded and tender are taken; at the second, those that are full grown; and at the third, the coarsest. The first forms what is called in Europe, Imperial tea; but as to the other names by which tea is known, the Chinese know nothing; and the compounds and names are supposed to be made and given by the merchants at Canton, who, from the great number of varieties brought to them, have an ample opportunity of doing so. Formerly, it was thought that green tea was gathered exclusively from C. viridis; but that is now doubtful, though it is certain there is what is called the green tea district, and the black tea district; and the varieties grown in the one district differ from those grown in the other. Dr. Abel was told by competent persons, that either of the two plants will afford the black or green tea of the shops, but that of the broad thin leaved plant (*C. viridis*) is preferred for making the green tea.

The different sorts of black and green tea arise, not merely from soil, situation, or the age of the leaf, but after winnowing the tea, the leaves are taken up in succession as they fall; those nearest the machine, being the heaviest, are the gun powder tea; the light dust the worst, being chiefly used by the lower classes. That which is brought down to Canton then undergoes a second roasting and winnowing; and many hundred women are employed for these purposes.

As more select sorts of tea, the blossoms of the C. sasanqua appear to be collected; the buds, also, appear to be gathered in some cases. By far the strongest tea which Dr. Abel tasted in China, was that called *yutien*, used on occasions of ceremony. It scarcely colored the water, and on examination was found to consist of buds and half expanded leaves of the plant.

As substitutes for tea used by the Chinese, may be mentioned a species of moss, common to the mountains of Shan-tung, an infusion of ferns of different sorts, and Dr. Abel thinks, the leaves of the common Camellia and oil camellia may be added. Du Halde observes, that all the plants, called tea, by the Chinese, are not to be considered as the true tea plant, and Kæmpfer asserts, that in Japan, a species of Camellia, as well as the olea fragrans, is used to give it a high flavor.

The oil bearing Camellia, (*C. oleifera*) is cultivated for its seeds, from which an oil is expressed, in very general use in the domestic economy of China. It grows best in a red sandy soil, attaining the height of six or eight feet, and producing a profusion of white blossoms and seeds. These seeds, as well as those of any other species, are reduced to a coarse powder, which is stewed or boiled in bags, and then pressed, when the oil is yielded.

The culture of the tea camellias in our green houses, is very simple. The plants are very hardy, and may be preserved in a pit without fire heat; they grow in a loamy soil, or loam and peat well drained, and increase freely by layers, or by cuttings of the young wood taken off when it begins to ripen, planted in sand, and covered with a hand glass in a cool frame or pit.

As the tea plants are cultivated in Japan, as far north as the 45th degree of north latitude, it is probable that they would stand the winter of the middle states without protection. C. sasanqua, and C. oleifera are nearly as hardy as the C. viridis and bohea.

Camellia japonica, in the groves and gardens of

China, is a lofty tree, much admired for its fine form, rich clothing of shining, deep green foliage, and elegant red or white flowers, single or double. It is equally admired in China as in Japan, and much cultivated in both countries. It is of frequent occurrence in Chinese paintings, with Hibiscus and Chrysanthemum, two of their great favorites. There are several varieties of the C. japonica in China, most of which have been imported here, and their number considerably increased, and daily increasing, from seedlings raised in this country. The double white, double striped, and double warratah, (from the central petals resembling those of the warratah plant of New Holland, Telopea speciosissima,) are considered the grandest and most marked varieties, and are also free growers and free flowerers: the pæony flowered and fringed white are also standard beauties. Other varieties in general cultivation, are single red, single white, semi-double red, double red, Middlemist's red, myrtle leaved,, Loddiges red, variegated warratah, Kew blush, Hume's blush or buff, Wellbank's Lady Long's, Pompone, hexangular, &c.

The single red Camellia is propagated by cuttings, layers and seeds; and on these the other sorts are generally inarched, but may be budded or grafted. When independent grafting is resorted to, the mode called side grafting is mostly used; but the operatiou of tongueing is omitted, as weakening the stock. A few seeds are sometimes obtained from the single red and semi-double camellias, and from the single warratah; these require two years to come up, but make the best stocks of any. The best cultivators regularly cross impregnate the blossoms in Knight's manner, by cutting out the stamens before the anthers are mature, and when the stigma is in a proper state, dusting it with the pollen of the species or variety intended as the male parent. C. sasanqua seeds most readily, and is mostly employed as the female parent for raising new varieties. The plants, if well treated, will flower in three or four years, and if nothing new is produced, they still make excellent stocks. The species of Camellia, are of surpassing beauty, but no plants bear the confined and dry air of the parlor worse than they do.

ART. 156. *Underlaying Rocks—Earthy Soils.*

[For the New-York Farmer.]

A mistake has generally prevailed, that *all* soils depend on the character of the underlaying rocks. This mistake originated with geologists, before the origin of soils was understood. That kind of soil only, which is called *anallution*, is composed of the disintegrated surface of the underlaying rock. All exposed surfaces of rocks are subject to continual disintegration, by the agency of moisture and change of temperature; and the soils thus produced depend for their characters on the rocks of which they are composed. Therefore, Argillate and argillaceous graywack produce clay soils by disintegration; while that produced from granular quartz, rubblewaike, &c. is always sandy. As such soils are not washed from the place of their production, they are called anallution.

All other soils are independent of any rock to which they can be referred. Plastic and marley clays are always in independent strata, and are generally overlayed with marine sand. As the marley clay is a very extensive deposite, and contains carbonate of lime and muriate of lime, it is generally covered with the marine sand; the barren sandy plains, so common in this country, may be fertilized at a cheap rate, by digging up the marly clay and mixing it with the sand. The Marlpits of New-Jersey, which contain animal remains, are peculiar beds in the marlev clay, not common in other districts. But the *general stratum*, in all places, makes excellent soil, when mixed with the overlaying sand. All the sand plains, from near Lake Champlain, to Greene County, on the west side of the Hudson, present a case where barren sands might be readily "converted into fruitful fields."

The *ultimate diluvion*, is the most unlimited in its extent of all soils. Immediately after the deluge it must have been Universal. It is now the Universal mantle enveloping the earth in all ancient forests, which have remained from the deluge undisturbed. It is always a greyish yellow loam, and is remarkably distinct when it overlays that kind of crag called hardpan. Its characters being nearly uniform on all parts of the earth, it seems to have been produced by the same Universal cause, it is probably the last settlings of a general deluge, deposited after the "violence of the waters were assuaged." This kind of soil is excellent when unmixed with any other. And when in a mixed state in cultivated fields, wherever we can discern it as a constituent, the fertility of the mixture seems to be improved by it. We have Diluvial and Post Diluvial soils. But these are such heterogeneous mixtures of gravel, sand, clay, loam, vegetable and animal matter, &c., that we are unable to give them any settled characters. Therefore *Plastic clay*, *Marley clay*, *Marine sand*, and *Ultimate diluvion*, are the only well defined elementary soils. And plastic clay (*potter-baker's clay*) is too limited to be taken into account.

As earthy soils never enter into the composition

of vegetables, excepting as an accidental extraneous substance, we are bound to treat them as media for the transmission of aeriform gasses and water, to the fibrous rootlets of plants. Dry earth will not absorb those gasses; but moist earth readily absorbs carbonic acid gas, ammonia, &c. which are furnished to the rootlets. Hence that earthy soil, which will absorb a due proportion of water *only*, and retain it for a long time, is the best. A due proportion of sand and clay constitutes this desideratum.

Carbonaceous manure, as rotted straw, charcoal, &c. absorb nutricious gasses with great avidity. This is daily shown in the chemical laboratory. Hence their great use. All, including gypsum, and limestone, either aid the process of vegetation by the absorption of gasses, or as stimulants, or as nutricious matters of themselves.

Rensselaer School, Troy, Dec. 31, 1829.

AMOS EATON.

ART. 197.—*Health of Farmers.—Remedy for the Sick Head-Ache.* By DR. S. REYNOLDS. [For the New-York Farmer.]

Mr. Editor,—I have noticed, with much satisfaction, your endeavor to make the New-York Farmer the medium of useful information. Your pages have often contained important lessons relative to breeding and fattening the brute animals, and for curing and preventing their disorders. This is certainly right, and why may they not furnish some hints to the Farmer respecting his own health, and the best method of preserving, and restoring it when lost. As health is infinitely of more importance than wealth, I have no doubt many of your readers would be pleased to see some remarks upon the subject every month in the year. I do not mean to say, you should strive to make "Every man his own Physician;" far from it; I know full well that the science of medicine is not to be learned from recipes. It is, in all its parts, complicated, and not to be acquired without long and laborious research. But a general knowledge of the best means of preserving health, that greatest of all blessings, is not of such difficult acquisition, and as every person is interested in the inquiry, so every one has leisure and ability to attain it. And there is a very common disease, and that of a very painful and obstinate nature, for which the production of the apothecary has seldom or ever been used with any advantage—I mean the Sick Head-Ache. With this complaint I have long endured a personal acquaintance, and have seen it with all its distressing symptoms in a thousand others, and I cannot recollect a single instance when medicine (as the term is generally understood,) was ever beneficially employed.

It is fortunately a peculiar character of this disease, that its duration is short, seldom lasting more than twenty-four, or forty-eight hours, whether medicine be used or not. Yet short as it generally is, it leaves the sufferer debilitated, disheartened, and with a fearful looking forward to the next paroxism. I have often felt and can detail all its symptoms: an unpleasant dullness first gives notice of its approach; the hands and feet are cold and palid, and are warmed with difficulty; then a pain, more or less severe, begins the attack in or over one eye: this spreads in a few hours, and that half of the head is all distress and confusion, the sense of smelling becomes preternaturally acute, and the flavour, even of a rose, is disgusting. A painful nausea now succeeds, attended with frequent efforts to discharge the contents of the stomach. When these are successful, and some bilious matter is thrown off, the head-ache abates, the sickness is relieved, and if the patient is in bed, sleep soon follows, and when he awakes, he usually finds himself convalescent. This, however, is not always the case, for not unfrequently the whole, or the other side of the head, is then affected, and all the preceding agonies are renewed, repeated, and protracted. For more than twice twenty years I have taken lessons in this "School of Misery." In my youth, the recurrence of this complaint was, perhaps not oftener than four or five times in a year; but as I advanced in life, the intervals became shorter, and the turns more severe; not a single month did I escape, and having medicine always before me, I took it whenever there seemed the least prospect of benefit. I took gentle and active emetics; I took laxitive and active purgatives, until I had "Demonstration strong as proof of Holy Writ," that they were injurious, rather than useful. I laid them all aside, and for the last two years, have enjoyed good health, with very few and faint assaults from my former enemy; and as I have had no serious alarm for the last six months, I begin to think "All's Well." This great blessing I attribute to the free use of old cider, prepared as follows:

Put into a clean barrel, four ounces of hops, six ounces of fine allum, one pound of the solution of burnt sugar, and two quarts of brandy; fill the cask with good fermented cider, cork it well, so as to prevent the escape of any fixed air which it may generate—let it stand quietly in a cool cellar, and it will improve with age.

From this I would advise those afflicted, as I have been, to take a glass (immediately after drawing,)

an hour before breakfast, an hour before dinner, and the same quantity just before going to bed.

To say that this will cure the Sick Head-Ache in all cases, would be gross quackery. But I have no hesitation in saying that *it may be useful to many*, as I have every reason to think it has been to me.

To form a theory for this practice, would not be a difficult task for any physician; he would perhaps say, that the acidity of the cider neutralized the bilious matter contained in the stomach, while the other materials gave tone and healthy action to that important organ.

Let me advise those who shall try this remedy, not to expect an immediate cure. The disease of which I am now speaking, is formed by habit, upon a constitution previously disposed to receive it—yet notwithstanding this, the constitution may be improved, and the habit changed. To effect this, the wise man will avoid every thing which experience shows to be unfriendly to the stomach, and in particular, will use very little sweet milk in all his diet; however pleasant or harmless he may think it, he will use no other fermented liquor, or ardent spirits; and in fine, he will observe the most rigid temperance in all things. He should write "Not too Much," upon his plate, and inscribe the same salutary monition, upon all his cups. The man who *will not* do this, ought never to complain of the Sick Head-Ache, or expect our sympathy.

S. Reynolds.

Florida, Dec. 25, 1829.

Remarks by the Editor.—We fully agree with Dr. S. on the importance of health, and the appropriateness of the subject to the columns of the New-York Farmer. We very cheerfully give place to his communication, and hope he will not fail to continue his favors.

NEW-YORK, DECEMBER 31, 1829.

Horticultural Society in the western part of N. York.

In regard to Horticulture, I think we are making great advances; and though our meeting last summer at Auburn, wore a discouraging aspect, the exhibition at Lyons was splendid, and placed our institution fully on its feet.

I have been disappointed at finding no account of those meetings in the New-York Farmer. Perhaps it may be owing to remissness on the part of our officers in not forwarding the accounts; but I believe that several readers of that journal, would have attended more punctually, if our proceedings had been noticed. In all institutions of this kind, the great weight must rest on the shoulders of a few, as many will always keep their eyes to the popularity of the measure. We hope our friends in the city will countenance us all they can.

[We published all that came to hand; shall feel indebted to any one who will furnish the proceedings in future. *Ed.*]

Wilson's Ornithology. I lately purchased a copy of Wilson's Ornithology, and though I thought I was well acquainted with many of our birds, I found new things which will materially affect some of my movements for the future. It is important that our farmers and gardeners, should be better acquainted with their feathered friends; and I could make some extracts, with brief remarks, that might benefit the publisher and amuse the readers of the New-York Farmer.

[This is just what we want. If they are accompanied by drawings, we will get wood cuts. *Ed.*]

Opinions in the New-York Farmer. A review of some of the opinions in the back numbers of the New-York Farmer might be useful, and I have been sometimes tempted to take up the pen.

[Retrospective criticism is as useful as pruning. *Ed.*]

Average prices of Vegetables sold in Washington Market in the months of November and December, 1829.—Corrected by Wm. Curr, Gardener.

Cauliflower, very abundant, and of fine quality, at from 50 cents, to $1 per doz.—*Brocoli* at from 25 to $1 per doz—*Cabbage*, from 25 to 50 per doz—*Lettuce*, from 12 1-2 to 25 cents per doz—*Celery*, from 4 to 6 cents per bunch of three heads—*Parsley*, 3 cents per bunch—*Leeks*, 3 cents per bunch; *Water Cresses*, from 4 to 6 cents per quart—*Corn Sallad*, from 12 1-2 to 25 cents per half peck—*Parsnips*, from 50 cents to $1 per hundred—*Beets*, from 37 1-2 to 50 cents per do.—*Carrots*, from 37 1-2 to 50 cents per do.—*Turnips*, from 10 cents to 25 per bushel—*Salsify*, from 4 to 6 cents per bunch—*Onions*, from 25 to 50 cents per bushel—*Radishes*, from 9 to 12 bunches, 12 1-2 cents—*Spinnage*, from 25 to 37 1-2 cents per bushel—*Scotch Kail*, from 18 to 25 cents per dozen heads—*Squashes*, from 4 to 12 1-2 cents each—*Pumpkins*, fm. 12 1-2 to 18 cts. each—*Apples*, from $1 to $1 50 per barrel—*Potatoes*, from 18 to 37 1-2 cents per bushel—*Sweet Potatoes*, from 75 cents to $1 25 per bushel—*Horse Radish*, 3 cents per bunch—*Pot* and *Medical Herbs*, in great plenty, from 10 to 14 bunches for 12 1-2 cents. The supply of Vegetables has been very abundant, and the quality generally good.